

23(71), 2022

#### To Cite

Kumar SN, Mishra S, Kumar S. A note on Ficus hederacea Roxb. (Moraceae). Species, 2022, 23(71), 144-147

#### Author Affiliation:

<sup>1</sup>Office of Divisional Forest Officer, Bonai Forest Division, Sundargarh, Odisha, India

<sup>2</sup>Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Odisha, India

#### \*Corresponding author:

Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Odisha, India Email-Id: sanjeetaprf@gmail.com

#### Peer-Review History

Received: 20 January 2022 Reviewed & Revised: 26/January/2022 to 18/March/2022 Accepted: 19 March 2022 Published: 21 March 2022

#### Peer-Review Model

External peer-review was done through double-blind method.



© The Author(s) 2022. Open Access. This article is licensed under a Creative Commons Attribution License 4.0 (CC BY 4.0)., which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/.

# A note on *Ficus hederacea* Roxb. (Moraceae)

Sanath Kumar N<sup>1</sup>, Sweta Mishra<sup>2</sup>, Sanjeet Kumar<sup>2\*</sup>

## **ABSTRACT**

*Ficus hederacea* Roxb. is abundantly available in Koira Range of Bonai Forest Division, Odisha, India, having ecological values. Detailed description, colour photographs, phenology, distribution etc. are provided for bring attention towards its importance in study areas.

Keywords: Ficus, Moraceae, Bonai Forest Division, Odisha

## 1. INTRODUCTION

Ficus L., popularly known as Fig, belongs to the family Moraceae (Naik et al., 2020). The genus Ficus is one of the largest genera in the group of angiosperm, covering about 870 species described to date (POWO, 2019; Nair et al., 2021). It is the largest member of the family Moraceae. In Odisha, about 35 species are reported belonging to this family. Among them, Ficus shows the highest diversity with about 29 species. Members belonging to this genus are monoecious or dioecious trees, shrubs, climbers, stranglers or sometimes woody epiphytes, characterized by showing milky sap or coloured or watery latex (Shu 2003; Berg & Corner 2005). Leaves are mostly alternate, simple, entire, pinnately or spirally arranged, and a unique type of inflorescence called a syconium, with many minute staminate or pistillate flowers, arranged on inner wall of hollow receptacle, connected through an apical pore to the outside and closed by scale like bracts. The flowers are unisexual and show variation depending upon the inflorescence. Fruits are drupe, usually enclosed within syncarp. Seeds pendulous, large without endosperm or small with endosperm. Many insects, birds and animals feed upon the fruits of Ficus throughout the year (Chaudhary et al. 2012; Rivera et al. 2020; Ezedin & Weiblen 2019).

Haines (1922) and Saxena & Brahmam (1995) reported the occurrence of only one climbing shrub species of this genus from the state of Odisha that is *Ficus fruticosa*. In 2012, Chaudhary et al. reported the presence of another climbing shrub from the genus *Ficus* that is *Ficus hederacea* from the state Odisha. Again in 2020, Debbarma et al. reported the Diversity and distribution of figs in Tripura but lack of information about the distribution of *Ficus hederacea* in Odisha. This indicates the lack of distributional record of the said species. During floristic exploration in Koira Range, Bonai Forest Division, Sundargarh, Odisha, the authors collected this interesting *Ficus* species from forest along the road sides in Jhirpani area (22° 0' 25" latitude, 85° 13' 29" longitude, 541.72 m elevation) during November 2021. After that authors observed this species in many sections of Koira and other ranges of Bonai



Forest Division, Odisha. The said species was collected for further taxonomical examination. Dissection and detailed morphological observations revealed that the specimen was *Ficus hederacea* Roxb., which is less reported from the districts of Odisha state. This communication is reported that the *Ficus hederacea* Roxb. is abundantly available at Koira range in Bonai Forest Division, Odisha.

# 2. MATERIALS AND METHODS

The collected specimen is identified by authors through the critical analysis of morphological characters and screening the relevant taxonomic literature, it was identified as *Ficus hederacea* and found that this species had less past record of its occurrence from the Odisha state. The brief description on the taxonomical note, photographs, phenology and associated flora are presented here for better understanding of the species. The voucher specimen deposited in the Biodiversity and Conservation Lab., Ambika Prasad research foundation, Odisha (APRFH-65) (Plate 1).



Plate 1: Vegetative parts and collection of plant specimen

# 3. RESULTS

## Taxonomic Treatment

Ficus hederacea Roxb., Fl. Ind. 3: 538. 1832; Wight, Icon. Pl. Ind. Orient. 2: t. 653. 1843.

# Vernacular name: Climbing Fig, Ivy Fig, Dudhe lahari.

Scandent evergreen shrub, trailing on rocks or ascending on tall trees, stems and branchlets with aerial roots at nodes. Leaves are ovate-elliptic pointed, entire, leathery, with 4-5 pairs of arching lateral nerves, hairs when young,  $6.8-7.5 \times 3.5-4.0$  cm., base broadly cuneate to obtuse, petiole  $0.8-1.0 \times 0.2-0.4$  cm. Figs are borne singly or in pairs in leaf axils, round or ovoid, yellowish green to red when mature, globose,  $1.0-1.5 \times 1.0-1.2$  cm. Petiole  $1.5-1.8 \times 0.3-0.4$  cm. Secondary veins 3-5 on each side of mid vein, abaxially prominent, and adaxially impressed. Stipules ovate, acuminate. Male flowers: few, scattered, sessile; perianth lobes 4; lanceolate, style sub terminal, stamens 2. Gall flowers: pedicellate; calyx lobes 4, lanceolate; ovary obovate, hard, black; style sub apical, short; stigmas curved. Female flowers: flowers on separate figs, perianth 4, style elongate, stigma sub-capitate, linear (Plate 2).

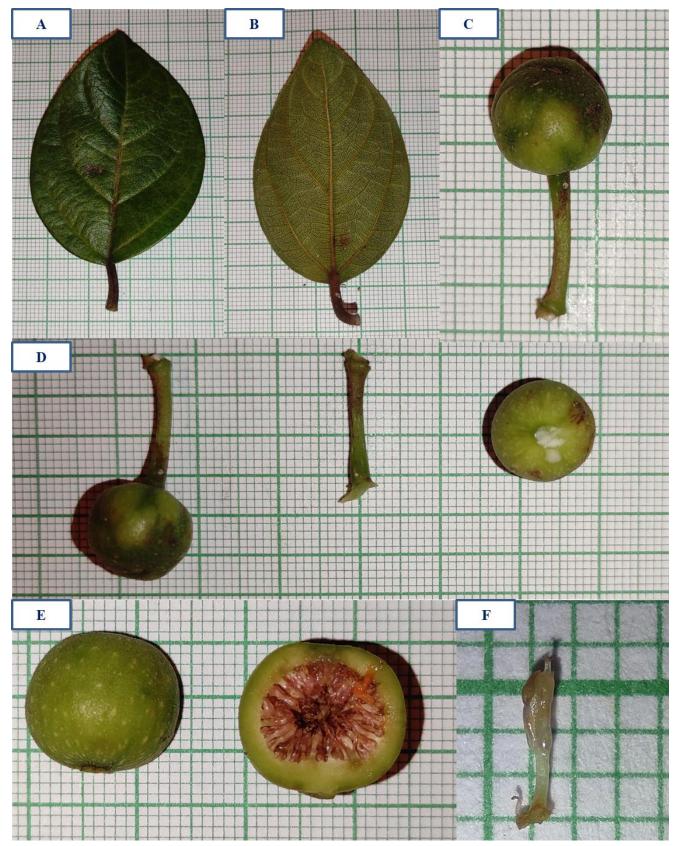


Plate 2: A) Ventral side of leaf B) Dorsal side of leaf, C&D) Fruit, E) Fruit section & Inflorescence, F) Floral part

**Phenology:** Flowering & Fruiting: August to March

**Ecology:** Forest margins or roadsides on mountain slopes.

Global distribution: Myanmar, India, southern China, Tonkin, Laos, Annam, and northern Thailand

## SPECIES I REPORT

Distribution in India: Andaman Islands, Arunachal Pradesh, Assam, Bengal, Bihar, Himachal Pradesh, Jharkhand, Madhya Pradesh, Meghalaya, Sikkim, Tripura, Uttarakhand and Odisha

# Acknowledgements

Authors are thankful to the forest officials of Bonai Forest Division and local communities of the study areas. Authors are also thankful to the team members of Ambika Prasad Research Foundation, Odisha.

#### Ethical approval

*Ficus hederacea* was observed from the Odisha. The ethical guidelines for plants & plant materials are followed in the study for collection & identification. The voucher specimen deposited in the Biodiversity and Conservation Lab., Ambika Prasad research foundation, Odisha (APRFH-65).

#### **Funding**

This study has not received any external funding.

#### **Conflicts of interests**

The authors declare that there are no conflicts of interests.

#### Data and materials availability

All data associated with this study are present in the paper.

## REFERENCES AND NOTES

- 1. Berg CC and Corner EJH. 2005. Moraceae: Ficeae. Flora Malesiana. 17(2): 1-70.
- 2. Chaudhary LB, Sudhakar JV, Kumar A, Bajpai O, Tiwari R and Murthy GVS. 2012. Synopsis of the Genus *Ficus* L. (Moraceae) in India. Taiwania. 57(2): 193-216.
- 3. Debbarma S, Banik B, Baishnab B, Data BK and Majumdar K. (2020). Diversity and distribution of figs in Tripura with four new additional records. Journal of Threatened Taxa. 12(11): 16548-16570.
- 4. Ezedin Z and Weiblen GD. 2019. Additions and changes to *Ficus* (Moraceae) in New Guinea with comments on the world's largest fig. 71(Suppl. 2):197-216.
- 5. Haines HH. 1922. The Botany of Bihar and Orissa, Part I-IV, Adlard and Son & West Newman Ltd, London.
- Naik MC, Singh LJ, Ganeshaiah KN. 2020. Floristic Diversity and Analysis of South Andaman Islands (South Andaman District), Andaman & Nicobar Islands, India. Species, 21(68), 343-409
- Nair SS, Bachan KHA, Ebin PJ, Augustine L, Josep A. 2021.
  Ficus virens Aiton var. matthewii Chantaras: A new distributional record from Kerala. Species, 22(69), 21-28
- 8. POWO. 2019. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; http://www.plantsoftheworldonline.org/ Accessed 02.01.2022.
- 9. Rivera PM, Pederneiras LC, Parizaca AD and Castillo JA. 2020. A New Species and a New Record of *Ficus* sect.

- Pharmacosycea (Moraceae) from Peru. Systematic Botany. 45(1): pp. 91–95.
- Saxena HO and Bramham M. 1995. The Flora of Orissa, Orrisa Forest Development Corporation Ltd & Regional Research laboratory. Vol I-IV.
- 11. Shu R. 2003. *Ficus* Linnaeus, Sp. Pl. 2: 1059. 1753. Flora of China. 5: 37-71.